## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R									Date:	06/24/14
Applicant:		Enbridge									County:	Kittson
Investigators	:	EAB/RAJ				Subregion	n (MLRA	or LRR):	MLRA 56		State:	MN
Soil Unit:	I1R32A											
Landform:	Talf				Lo	cal Relief:					Sample Point:	u-159n48w31-a1
Slope (%):	0 - 2%		Latitude:	48 643		Longitude:		375	Datum:		1	
		onditions on the site							□Yes	☑ No	Section:	
Are Vegetation		□ or Hydrology			disturbed?			normal circum			Township:	
Are Vegetation		or Hydrology					7 0	☑ Yes	□No		Range:	Dir:
SUMMARY C	-	, ,	<b>—</b> itarai	ly proc	nomatio:						range.	<b>5</b> 11.
Hydrophytic \				No					Hydric Soil	c Drocont?	No	
Wetland Hyd			_	Yes		•					t Within A W	etland? <b>No</b>
					deide ditch	Smooth br	ome dor					
Remarks: The sample site is located just west of a roadside ditch. Smooth brome dominates the upland, and pipelines and other utilities run through the site. The area has received above-average rainfall in recent weeks.												
LIVEROL OO		d above-average i	i ali ilali ili	recen	t weeks.							
HYDROLOG	Y											
Wetland Hy	drology Ind	icators (Check all	I that app	ly; Min	imum of on	e primary	or two se	econdary requir	ed):			
Primary:										Secondary:		
	A1 - Surface					B11 - Salt (					B6 - Surface S	
	A2 - High Wa A3 - Saturation					B13 - Aqua C1 - Hydro		o Odor			B8 - Sparsely 'B10 - Drainage	Vegetated Concave Surface
l	B1 - Water M					C2 - Dry Se						Rhizospheres on Living Roots (tilled)
I	B2 - Sedimen							pheres on Living	Roots (not till		C8 - Crayfish E	
	B3 - Drift Dep					C4 - Prese	nce of Re	duced Iron	`		C9 - Saturation	n Visible on Aerial Imagery
	B4 - Algal Ma					C7 - Thin M		ace			D2 - Geomorp	
	B5 - Iron Dep					Other (Expl	lain)				D5 - FAC-Neu	
	B9 - Water-St	on Visible on Aerial Im	nagery								D7 - Frost-Hea	aved Hummocks (LRR F)
"	D3 - Water-O	tallica Leaves										
Field Observ	vations:											
		V		D		(im )						
Surface Wate		_		Depth:		(in.)			Wetland H	lydrology I	Present?	Υ
Water Table		Yes 🔲		Depth:		(in.)						<u> </u>
Saturation Pr	resent?	Yes 🗹		Depth:	0	(in.)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:												
						evious insp	ections),	if available:				
Remarks:		stream gauge, mon- sturated due to rec				evious insp	ections),	if available:				
						evious insp	ections),	if available:				
						evious insp	ections),	if available:				
Remarks:  SOILS Profile Descri	Soils are sa	iturated due to rec	eent heav	y rains docum	ent the indi	cator or co	onfirm the	e absence of in				
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Remarks:  SOILS Profile Descri	Soils are sa	iturated due to rec ibe to the depth ne etion, RM=Reduced M	eent heav	y rains docum	ent the indi	cator or co	onfirm the	e absence of in ore Lining, M=Matri				
Remarks: SOILS Profile Descri (Type: C=Concer	Soils are sa	iturated due to rec ibe to the depth ne etion, RM=Reduced M Matrix	eent heav	y rains docum	ent the indi	cator or co	onfirm the	e absence of in ore Lining, M=Matri es	x)			
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Remarks: SOILS Profile Descri (Type: C=Concer	Soils are sa	ibe to the depth ne etion, RM=Reduced M Matrix Color (Moist)	eeded to eatrix, CS=C	docum covered/	ient the indi Coated Sand ( Color (I	cator or cc Grains; Locat Moist)	onfirm the	e absence of in ore Lining, M=Matri es Type	x)	Texture		Remarks
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Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)	ption (Descriptration, D=Depl	ibe to the depth ne etion, RM=Reduced M Matrix Color (Moist)	eeded to eatrix, CS=C	docum covered/ %	cators are r	cator or co Grains; Locat Moist)	onfirm the	e absence of in ore Lining, M=Matri es Type	Location	Indicators f	for Problematic	
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)	ption (Description, D=Depl	ibe to the depth neetion, RM=Reduced Mi  Matrix  Color (Moist)  Indicators (ch	eeded to eatrix, CS=C	docum covered/ %	cators are r	cator or co	onfirm the	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M	luck (LRR I, J)	c Soils <sup>1</sup>
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)	ption (Descriptration, D=Depl	ibe to the depth neetion, RM=Reduced Mi  Matrix  Color (Moist)  Indicators (chair)	eeded to eatrix, CS=C	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped	cator or co Grains; Locat Moist)	Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F		c Soils <sup>1</sup> RR F, G, H)
Remarks:  SOILS Profile Descri (Type: C=Concer	ption (Description, D=Depl	ibe to the depth ne etion, RM=Reduced M  Matrix  Color (Moist)  Indicators (chair)	eeded to eatrix, CS=C	docum Covered/ %	cators are r	Cator or co Grains; Locat Moist)  Moist)  not present	Mottle %  It is a second or the second or th	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark Si	luck (LRR I, J) Prairie Redox (L urface (LRR G)	c Soils <sup>1</sup> RR F, G, H)
Remarks:  SOILS Profile Descri (Type: C=Concer	ption (Descriptation, D=Depl	ibe to the depth neetion, RM=Reduced Mi  Matrix  Color (Moist)  Indicators (chairpedon stice in Sulfide I Layers (LRR F)	eeded to eatrix, CS=C	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped F7 - Loamy M F7 - Depleted	cator or co Grains; Locat Moist)  not present edox Matrix lucky Minera Eleyed Matrix Matrix Matrix	Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc	luck (LRR I, J) Prairie Redox (L urface (LRR G) Plains Depression ed Vertic	<del>c Soils<sup>1</sup></del> .RR F, G, H)
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Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)	ption (Descrintration, D=Deplintration,	ibe to the depth ne etion, RM=Reduced M  Matrix  Color (Moist)  Indicators (chair)	eeded to eatrix, CS=C	docum covered/	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F2 - Loamy G F6 - Redox D F7 - Depleted	Moist)  Moist)  Mot present  edox Matrix Jucky Minera Juc	Mottle %  tt):	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox (L urface (LRR G) Plains Depression and Vertic Parent Material Shallow Dark S	C Soils <sup>1</sup> RR F, G, H)  DNS (LRR H, outisde MLRA 72, 73)  Surface
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)  NRCS Hydr	ption (Descriptration, D=Deplied A1- Histosol A2 - Histic Ep A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	ibe to the depth neetion, RM=Reduced Mi  Matrix  Color (Moist)  Indicators (chairpedon stic in Sulfide IL Layers (LRR FGH) and Below Dark Surface ark Surface	eeded to eatrix, CS=C	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Locat Moist)  Mot present edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surfae epressions	Mottle %  Mottle tion: PL=Pe	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox (L urface (LRR G) Plains Depression Parent Material	C Soils <sup>1</sup> RR F, G, H)  DNS (LRR H, outisde MLRA 72, 73)  Surface
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Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.)  NRCS Hydr	ption (Descrintration, D=Depl  ic Soil Field  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M	ibe to the depth neetion, RM=Reduced Mi  Matrix  Color (Moist)  Indicators (chairpedon stic in Sulfide IL Layers (LRR FGH) and Below Dark Surface ark Surface	eeded to eatrix, CS=C	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Locat Moist)  Mot present edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surfae epressions	Mottle %  Mottle tion: PL=Pe	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (L prairie Redox (L prace (LRR G) Plains Depression bed Vertic Varent Material Shallow Dark S ain in Remarks)	C Soils <sup>1</sup> RR F, G, H)  DNS (LRR H, outisde MLRA 72, 73)  Surface
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## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-159n48w31-a1			
<b>VEGETATION</b>		non-native	species.)					
Tree Stratum (	Plot size: 30 ft. radius)							
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet			
1.								
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)			
3.								
4.					Total Number of Dominant Species Across All Strata:(B)			
5.								
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)			
7.								
8.					Prevalence Index Worksheet			
9.					Total % Cover of: Multiply by:			
10.					OBL spp. 0 x 1 = 0			
	Total Cover =	0			FACW spp. $0   x 2 = 0$			
	_				FAC spp. $0   x   3 = 0$			
Sapling/Shrub Stratum (Plot size: 15 ft. radius)					FACU spp. 35 x 4 = 140			
1.					UPL spp. 70 x 5 = 350			
2.								
3.					Total 105 (A) 490 (B)			
4.								
5.					Prevalence Index = B/A = 4.667			
6.								
7.	-							
8.					Hydrophytic Vegetation Indicators:			
9.					Rapid Test for Hydrophytic Vegetation			
10.					Dominance Test is > 50%			
10.	_ Total Cover =	0			Prevalence Index is ≤ 3.0 *			
	Total Govel -		_		Morphological Adaptations (Explain) *			
Horb Stratum (I	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *			
1.	Bromus inemis	70	Y	UPL	Problem Hydrophytic Vegetation (Explain)			
2.	Melilotus officinalis	10	N .	FACU	* Indicators of hydric soil and wetland hydrology must be			
3.	Cirsium arvense	10	N	FACU	present, unless disturbed or problematic.			
4.	Solidago canadensis	10	N	FACU	Definitions of Vegetation Strata:			
5.	Poa pratensis	5	N	FACU	Definitions of Vegetation Strata.			
6	roa piaterisis	5	IN	FACU	Troo			
7.				-	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.			
				-	g(= //, g			
8.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.			
9.					Saping/Sirub - woody plants less than 5 in. DBH, regardless of neight.			
10.								
11.					Herb - All herbaceous (non-woody) plants, regardless of size.			
12.					Herb - All herbaceous (non-woody) plants, regardless of size.			
13.				_				
14.					March March March Control of Control			
15.					Woody Vines - All woody vines, regardless of height.			
]	Total Cover =	105	_					
	ratum (Plot size: 30 ft. radius)							
1.								
2.								
3.					Hydrophytic Vegetation Present? N			
5.								
4.				_				
	Total Cover =	0						
Remarks:	The site is dominated by smooth brome, with	a minor s	weetclove	r, Canada	thistle, and Canada goldenrod components.			
Additional R	temarks:							